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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,823	08/08/2005	Richard Malick Ambrosi	3523 P 008	1104

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EXAMINER	
HANNAHER, CONSTANTINE	

ART UNIT	PAPER NUMBER
2884	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/526,823	AMBROSI ET AL.	
	Examiner	Art Unit	
	Constantine Hannaher	2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20050915*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Note: a national stage application filed under 35 U.S.C. 371 may not claim benefit of the filing date of the international application (of which it is the national stage) since its filing date is the date of filing of that international application. See also MPEP § 1893.03(b). Stated differently, since the international application is not an earlier application (it has the same filing date as the national stage), a priority claim in the national stage to the international application is inappropriate.

Information Disclosure Statement

2. The information disclosure statement filed September 15, 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

An abstract is not a copy.

3. As set forth in MPEP § 609:

> 37 CFR 1.98(b) requires that each item of information in an IDS be identified properly. U.S. patents must be identified by the inventor, patent number, and issue date. U.S. patent application publications must be identified by the applicant, patent application publication number, and publication date. U.S. applications must be identified by the inventor, the eight digit application number (the two digit series code and the six digit serial number), and the filing date. If a U.S. application being listed in an IDS has been issued as a patent, the applicant should list the patent in the IDS instead of the application. Each foreign patent or published foreign patent application must be identified by the country or patent office which issued the patent or published the application, an appropriate document number, and the publication date indicated on the patent or published application. Each publication must be identified by publisher, author (if any), title, relevant pages of the publication, date and place of publication. The date of publication supplied must include at least the month and year of publication, except that the year of publication (without the month) will be accepted if the applicant points out in the information disclosure statement that the year of publication is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the particular month of publication is not in issue. The place of publication refers to the name of the journal, magazine, or other publication in which the information being submitted was published.

Note that the publisher and place of publication are not identified for Downing *et al.* (2000).

Oath/Declaration

4. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It is not plainly and legibly written either by a typewriter or machine printer in permanent dark ink or its equivalent, as required under 37 CFR 1.52(a)(1)(iv).

5. When applicant states that the post office address is the "same" as residence applicant's representative should keep in mind that a "residence" is a city and state or foreign country. The superfluous information given for residence is accepted as constituting a mailing address. The Office has been able to discern the city and state or foreign country of residence from the information supplied. See the requirements of 37 CFR 1.63(c)(1) as amended effective November 7, 2000.

Specification

6. Section 608.01 of the MPEP states in part:

> In order to minimize the necessity in the future for converting dimensions... to the metric system of measurements when using printed patents... all patent applicants should use the metric (S.I.) units followed by the equivalent English units when describing their inventions....

The Assistant Secretary and Commissioner of Patents and Trademark strongly reiterated and emphasized strong encouragement for patent applicants to use the metric system in patent applications in a message appearing at 1135 O.G. 55 dated February 18, 1992. At some future time, the USPTO will consider making it a requirement.

Note the use of the bar. The Examiner is unable to require the use of SI units. The requirement for use of SI units is found in PCT Rule 10.1(a).

7. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Note the use of "There is disclosed" which can be implied and "comprising" with is legal phraseology. The requirement for conciseness is found in PCT Rule 8(b).

8. The disclosure is objected to because of the following informalities: page 1, there is no page number as required by 37 CFR 1.52(b)(5), the requirement for a number on every sheet of description is found in PCT Rule 11.7(a); page 2, line 6, "be means" where --by means-- is meant; page 2, line 23, the reference to Fig. **1** is incorrect; page 4, line 23, the year of publication is incomplete.

Appropriate correction is required.

Claim Objections

9. The radiation detector recited in claim 11 (and in dependent claims) will be taken to refer to the *neutron* detector established at line 2 thereof.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 11, and 20, the phrase "or like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Since applicant expects spheres and fibers to be within the scope of "the like" it is not apparent what feature(s) of microchannels constitutes those aspects thereof which create a scope for these claims. The balance of the claims is rejected on the basis of their dependence.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Downing *et al.* (US006828714B2) in view of Lange *et al.* (DE4237097A1).

With respect to independent claim 11, Downing *et al.* discloses a detection device **91** (Fig. **5**) for detecting radiation (*e.g.*, column 3, lines 53-56) comprising a neutron detector **92** directly coupled

to an electron detector **124**, wherein the radiation detector comprises a plate having a plurality of microchannel detection sites disposed thereon (Fig. 8) which produce an electron output, and the radiation detector is directly coupled to the electron detector without an intermediate scintillator layer (column 10, lines 21-36). Although electronic readout **124** in the device of Downing *et al.* is not identified as a pixel array electron detector, in the art of detecting radiation, Lange *et al.* teaches a device **4** (Fig. **2**) comprising a microchannel electron multiplier **15** directly coupled to a pixel array electron detector **17** with no intermediate scintillator layer (electrons **16** pass through vacuum established by housing **9**). In view of the desire for radiation imaging in the device of Downing *et al.* (column 10, line 22) it would have been obvious to one of ordinary skill in the art at the time the invention was made to specify that electronic readout **124** was a detector of electrons **128** in the form of a pixel array as suggested by Lange *et al.* in view of the ready adaptability of the signals created by such an array to presentation as an image (on monitor **7** in Fig. **1**).

With respect to dependent claim 12, the radiation detector in the device suggested by Downing *et al.* and Lange *et al.* is a microchannel plate (plate **196** with channels **200** in Downing *et al.*, plate **15** in Lange *et al.*).

With respect to dependent claim 13, the radiation detector in the device suggested by Downing *et al.* and Lange *et al.* is a plate of one of the recited types (column 2, lines 37-39 of Downing *et al.*).

With respect to dependent claim 14, the electron detector in the device suggested by Downing *et al.* and Lange *et al.* is a pixel array detector of one of the recited types (column 2, lines 41-43).

With respect to dependent claim 15, the electron detector in the device suggested by Downing *et al.* and Lange *et al.* has no entrance window as is apparent from the respective views (Fig. 8, Fig. 2).

With respect to dependent claim 16, the radiation detector in the device suggested by Downing *et al.* and Lange *et al.* has a front face as is apparent from the respective views (Fig. 8, Fig. 2) upon which radiation is incident, and the surface area of the front face is a value within the claimed range (column 1, lines 52-55 of Lange *et al.*).

With respect to dependent claim 17, the device suggested by Downing *et al.* and Lange *et al.* further comprises imaging means of the type recited in view of the schematic illustration by Lange *et al.* of amplifier **6** and monitor **7**.

With respect to dependent claim 18, see column 7, line 37 of Downing *et al.*

Response to Submission(s)

15. The amendment filed March 4, 2005 has been entered.

16. This application has been published as US2006/0163487A1 on July 27, 2006.

Allowable Subject Matter

17. Claim 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

18. Claims 1-10 and 20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

19. The following is a statement of reasons for the indication of allowable subject matter: although Downing *et al.* gives thermal neutrons as an example of the disclosed device's sensitivity

(column 7, line 32) it is not apparent that the construction of the lead glass plate or the contents of the channels described would have utility for neutrons with an energy greater than the recited value.

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Constantine Hannaher whose telephone number is (571) 272-2437. The examiner can normally be reached on Monday-Friday with flexible hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ch

Constantine Hannaher
Primary Examiner